

Whitehouse Waste Oil Pits Site



Jacksonville, Duval County Florida

March 2001

On September 24, 1998, following a public comment period and public meeting, EPA signed an Amended Record of Decision (AROD) selecting a cleanup remedy for contamination at the Whitehouse Waste Oil Pits Superfund Site ("the Site") in Jacksonville, Florida. This fact sheet describes the remedial design recently approved by EPA, and the significant differences between the final design and the 1998 AROD.

Other topics covered in the fact sheet include: findings of the treatability study, sampling news, negotiations with potentially responsible parties (PRPs), and the availability of a technical assistance grant (TAG) from EPA.

The final design and other information about the site can be reviewed at the information repository, which is located at the Whitehouse Elementary School, 11160 General Avenue, Jacksonville. Call the school at (904) 693-7542 for more information about school library hours.

EPA APPROVES REMEDIAL DESIGN

On September 28, 2000, EPA approved the remedial design for the Whitehouse Waste Oil Pits Superfund Site. The remedial design consists of the plans, engineering drawings, and specifications necessary to translate the 1998 Amended Record of Decision (AROD) into the remedy to be constructed under the remedial action phase.

The purpose of the cleanup is to isolate the waste oil pits as a source of groundwater and surface water contamination and to reduce the risks associated with exposure to the contaminated material. The remedial action is designed to achieve the cleanup goals specified in the Amended Record of Decision.

Figure 1 illustrates several of the key elements of the final design. The main design elements include:

- In situ (in place) stabilization/solidification treatment of the upper 3 feet of material (23,000 cubic yards) over the waste oil pits. About 4.8 acres will be stabilized;
- Installation of a vertical barrier (soil bentonite slurry wall) to isolate and contain contaminated soil, sludge, wetlands, sediment, and groundwater. The wall will have an approximate length of 3,100 linear feet, a minimum width of 3 feet, and an average depth of 65 feet;
- Construction of a multi-layer cap over the contaminated area which meets the Resource Conservation and Recovery Act (RCRA) closure requirements. Figure 2 shows a typical cap cross-section. The cap will cover about 10.5 acres;
- Realignment of about 1500 feet of the northeast tributary of McGirts Creek in the northern and western portions of the Site. The realigned creek area will be planted with trees and wetland plants to restore the wetlands disturbed by the cap construction;
- Extension of the city water supply to 25 properties along Machee Drive and four properties located to the east of the Site on Chaffee Road; and
- Plugging of private drinking water wells at each residence connected to the municipal water supply.

Figure 1

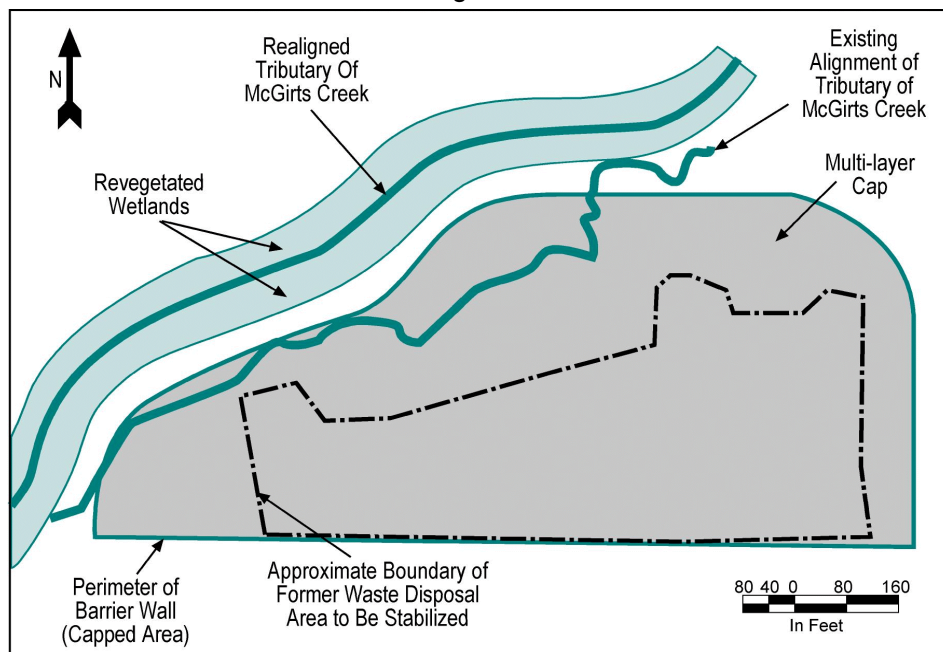
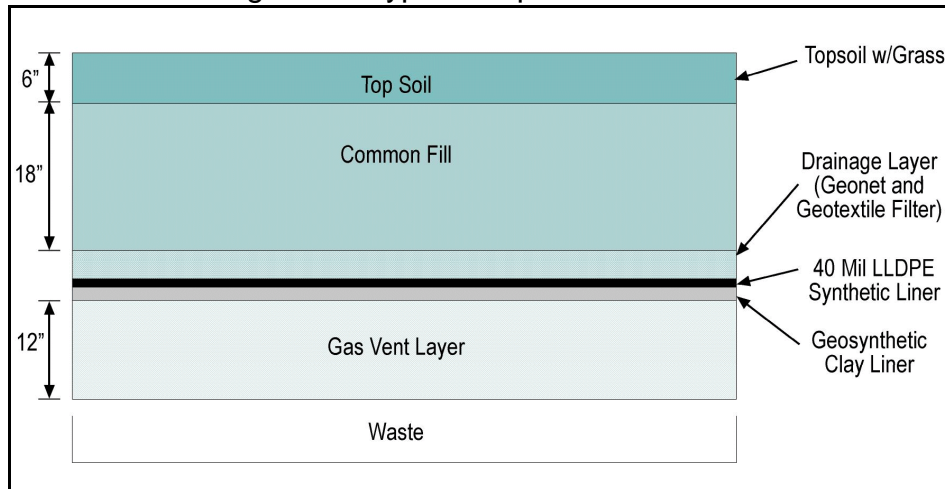


Figure 2 - Typical Cap Cross-Section



The final design also includes installation of a permanent security fence around the containment area, installation and maintenance of stormwater management controls, and imposition of deed restrictions to control future land and groundwater use.

Long-term groundwater monitoring will be performed for a 30-year period to verify the performance of the remedial action. A network of 40 wells will be used to monitor the natural attenuation of contaminated groundwater outside of the containment system and to assess the effectiveness of the barrier wall. The groundwater monitoring schedule will be quarterly for the first 2 years, semi-annually for the next 3 years, and annually thereafter.

Waste cap maintenance, including mowing, watering, and fertilizing the vegetation on the cap, will be performed on a monthly basis for a 30-year period. In addition, long-term maintenance will be performed on the stormwater management system, such as erosion monitoring and repair, removal of sediment from drainage ways, etc.

EPA ADOPTS CHANGES TO THE AROD

The final design was developed by CDM Federal Programs Corporation

(CDM Federal) for EPA with review and input by the Florida Department of Environmental Protection, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the National Oceanic and Atmospheric Association. Their ultimate goal is to ensure that the final design meets the objectives of the Amended Record of Decision (AROD), signed in September 1998.

EPA is required to advise the public when the final design differs significantly from the remedy described in the AROD. Explanations of the significant differences are described below.

Lime Curtain - The lime curtain has been dropped from the design. The purpose of the "lime curtain" was to remove manganese from the groundwater within the containment system. However, further evaluation indicated that adding lime to the groundwater system would increase the amount of calcium in the system, which could adversely affect the soil bentonite slurry wall. Furthermore, groundwater modeling indicated that the slurry wall will be protective without the lime curtain. Additional physical testing confirmed the long-term compatibility of the slurry wall backfill mix with Site groundwater.

Monitoring wells will be installed outside the slurry wall in the southwest corner of the Site. These wells will monitor the pH of the groundwater over time to verify that the low pH groundwater is not significantly

affecting the groundwater outside of the containment system. If the pH of the groundwater outside of the barrier wall decreases significantly, EPA will evaluate options to address the problem.

Vertical Barrier (Slurry Wall) - The slurry wall is longer and deeper than specified in the AROD. Sampling performed during the design phase revealed that groundwater contamination extends further west than previously known. As a result, the slurry wall in the final design encompasses additional contaminated groundwater both north and west of the Site. In addition, the results of the design investigation indicated that the slurry wall in the final design needs to extend to a depth of 55 to 65 feet, rather than 40 feet as estimated in the AROD, to ensure that the wall keys into the semi-confining unit.

Capped Area - The capped area has increased from 9 acres to 10.5 acres. The capped area is 17% larger than estimated in the AROD due to the increased size of the containment area.

Tributary Realignment - An additional 900 feet of the McGirts Creek tributary will be realigned. About 1,500 feet the creek will be realigned instead of the 600 feet estimated in the AROD because the cap and slurry wall were expanded to the North. No endangered plants or animals were encountered in the proposed construction areas during the ecological survey of the creek and surrounding wetlands. The final design includes features to improve the wetland habitat for plants and animals, as well as erosion control measures to protect the stream.

Present-Worth Cost - The present worth cost has increased by \$1.7 million. The design estimates the present-worth cost of the remedial action to be \$10.1 million, in contrast to \$8.4 million estimated in the AROD. Several major factors contributed to this increase, including the extension of the slurry wall into the western portion of the Site and its extended depth of 55 to 65 feet; an increase in the overall size of the capped area;

realignment of approximately 900 additional feet of the tributary; and the permanent and/or temporary acquisition of portions of properties surrounding the Site which lie within the expected area of construction activities.

TREATABILITY STUDY RESULTS REFINE DESIGN

CDM Federal conducted a number of tests during the remedial design phase to refine the details of the solidification/ stabilization (S/S) and slurry wall called for in the 1998 AROD.

Vertical Barrier (Soil Bentonite Slurry Wall)- Results from tests conducted on slurry materials and backfill mixes confirm that an effective soil-bentonite backfill can be prepared for the proposed barrier wall at the Site. Two backfill mixes tested are considered acceptable for barrier wall construction.

S/S Additive - Three different S/S mixes were evaluated for strength, permeability, and leachability. Only one mix (20%, by weight, Portland cement as an additive) met the minimum strength requirement. This mix also passed permeability and leachability testing.

Treatment using the additive in a slurry form is recommended to limit dust generation during treatment and because the materials to be treated lack sufficient moisture content to hydrate the cement if applied in dry form.

EPA BEGINS NEGOTIATIONS WITH PRPs

EPA initiated a new round of negotiations with potentially responsible parties (PRPs) for the Site in November 2000. A PRP is an individual or company who may have owned, operated, transported or generated hazardous waste that

SITE HISTORY

The 7-acre Whitehouse Waste Oil Pits Superfund Site is an abandoned waste oil sludge disposal facility located about 10 miles west of downtown Jacksonville, Florida, in the community of Whitehouse. The Site is situated west of Chaffee Road, less than a mile north of U.S. Highway 90 and immediately adjacent to a suburban residential development.

From about 1956 to 1968, Allied Petro-Products, Inc. operated the Site as a repository for waste oil sludges and acidic oil refinery by-products. Wastes were dumped into seven unlined pits on Site. Allied ceased operations in 1968 and filed for bankruptcy.

In 1968, the dike surrounding Pit 7 ruptured, resulting in a spill onto adjacent properties and into McGirts Creek. In 1976, the EPA Region 4 Emergency Response Branch responded to a waste oil spill from another pit. The City of Jacksonville drained, stabilized and covered the pits, and surface water diversion ditches were constructed. In 1979, the City capped the pits with clay and topsoil under the supervision of the Florida Department of Environmental Regulation (FDER).

The Site was proposed for listing on the National Priorities List (NPL) in 1981, after monitoring results indicated the migration of Site contaminants to surface and groundwater. The Site's listing on the NPL was finalized in 1983. Also in 1983, FDER completed a Remedial Investigation which characterized the Site wastes and the extent of contamination. In 1985, EPA completed a Feasibility Study which evaluated remedial alternatives.

In 1985, EPA signed a Record of Decision (ROD), selecting containment of the pit areas and adjacent wetlands, and extraction and treatment of contaminated groundwater. With the passage of the Superfund Amendments and Reauthorization Act in 1986, EPA began to re-evaluate the 1985 ROD in search of cleanup alternatives using treatment. EPA conducted additional studies from 1988 to 1991. In 1992, EPA issued an Amended ROD to change the remedy for source materials to a combination of soil washing, bioremediation, and stabilization/solidification.

In 1994, EPA and a group of PRPs signed an Administrative Order on Consent (AOC) for new studies to better define waste materials in the pits. In January 1995, EPA modified the AOC to include requirements for a Supplemental Treatability and Feasibility Study (STFS), which the PRPs completed in July 1997. Results of the STFS indicated that the remedy outlined in the 1992 Amended ROD would not be effective in addressing the Site contamination. EPA then issued a second Amended ROD on September 24, 1998, incorporating elements of both the 1992 Amended ROD and the original 1985 ROD.

CDM Federal Programs performed the design activities for the selected remedy, beginning with ecological investigations in April 1999. Soil and groundwater investigations as well as surface water and sediment sampling took place in May and June 1999.

In September 2000, EPA approved the remedial design for the Site, and expects construction activities to begin in late 2001.

contributed to contamination problems at a Superfund Site.

The Whitehouse Site is considered a National Allocation Pilot Site. Under this program, a neutral third party assigned a percentage of the site cleanup costs to each PRP based on their contribution to the contamination. EPA will pay the costs assigned to bankrupt or defunct PRPs.

Although EPA will share the costs with responsible parties, the Agency expects the PRPs to perform the remedial action. EPA received "good faith offers" to perform the work from a number of PRPs in January 2001. Negotiations are expected to be finalized in the next few months. Construction of the remedial action is expected to begin in late 2001.

EPA has contracted CDM Federal to provide oversight of the responsible parties and community relations support during the remedial action phase.

SAMPLING NOTES

During a previous sampling event, offsite soil contamination was detected on one residential property. As a result, additional soil sampling was done in December 2000 in residential areas along McGirts Creek north of U.S. Highway 90 to determine if offsite contamination extends to this point. The results of this testing will be published in a report next month. Any additional contamination will be addressed during construction.

In response to concerns raised by citizens during the last public meeting, the Duvall County Health Department sampled a number of private wells along Mabelle Drive and in other areas near the site. The Health Department has advised that all sampled wells met drinking water standards.

GRANT AVAILABLE FROM EPA

EPA provides community groups with the opportunity to apply for Technical Assistance Grants (TAGs) of up to \$50,000 per Superfund site. With TAG funding, a community group can hire a technical adviser to help interpret existing information about the site or new findings that develop during the Superfund cleanup process.

Recent changes in the TAG application process make it easier for a community group to obtain a \$50,000 grant.

Citizens who are interested in applying for a TAG may obtain an application package by calling or writing:

Rosemary Patton
U.S. Environmental Protection Agency
61 Forsyth Street, SW
Atlanta, Georgia 30303
1-404-562-8866



FOR MORE INFORMATION

Attend Future Public Meetings

A public meeting will be held to discuss the final design and remedy for the Whitehouse Site. The public will be notified of the date and location of this and all future public meetings via mailings and newspaper announcements.

Call EPA's Information Line

If you have any questions about this project, call EPA at 1-800-435-9234 and speak with Mark Fite, Remedial Project Manager.

Visit the Information Repository

Reports and plans for the Whitehouse Site are located at:
Whitehouse Elementary School
11160 General Avenue
Jacksonville, Florida 32220